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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/328,931 06/09/99 MORRIS

D TES-7356-003

QM02/0517
TIMOTHY E. SIEGEL, PATENT ATTORNEY
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EXAMINER

VERDIER, C

ART UNIT	PAPER NUMBER
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3745

DATE MAILED:
05/17/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/328,931

Applicant(s)
Morris

Examiner
Christopher Verdier

Group Art Unit
3745



☒ Responsive to communication(s) filed on Mar 6, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1 and 2 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1 and 2 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on Jun 9, 1999 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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Applicant's Amendment dated March 6, 2000 has been carefully considered but is deemed non-persuasive. Claims 1-2 are pending. Applicant's statement that corrected drawings will be submitted after receipt of a Notice of Allowance is noted. The specification has been amended to correct the informalities noted in the first Office action, with the exception of the abstract. The claims have been amended to overcome the rejection under 35 USC 112, second paragraph. Correction of the above matters is sincerely appreciated.

Applicant has argued that the claims define over Wallace, Wilford, and Kingsbury, because the claims recite a set of rotatable blades that sweep out the shape of a virtual disk having the properties of a lifting body when rotated rapidly by the mast, and that the examiner has not taken the position that the blades sweep out a virtual disk having the properties of a lifting body. Applicant has also argued that no cited references advance the notion that their drawings show a blade set that assumes the properties of a lifting body when rotated, and that no reasoned interpretation of the drawings could suggest that they accidentally anticipate the invention. These arguments are not persuasive for several reasons. Firstly, the claims have not been amended by Applicant, and were properly rejected under 35 USC 102 for the reasons set forth in the first Office action, therefore the examiner has taken the position that the blades sweep out a virtual disk having the properties of a lifting body because the claims were rejected under 35 USC 102 based on the above references. Claim limitations which are conventionally shown in applied references and/or which are readily recognizable to persons skilled in the art are not explicitly

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identified in rejections by examining personnel. Secondly, the blades of Wallace, Wilford, and Kingsley inherently must sweep out the shape of a virtual disk having the properties of a lifting body when rotated rapidly by the mast, because if they did not sweep out the shape of a virtual disk having the properties of a lifting body when rotated rapidly as Applicant has argued, the helicopters would have no vertical lift, and thus the helicopters would be incapable of developing any lift, and therefore would not operate. The requirement that lift be generated by the rotating blades is a prerequisite requirement for operability in a helicopter.

With regard to Applicant's argument that the propeller of Kingsbury clearly provides vertical lift due to its rotation, rather than any lifting effect when pushed through the air, this argument appears to admit that the blades of Kingsbury generate lift due to rotation, which is the limitation set forth in claim 1, lines 5-7. Because blades 16, 17 of Kingsbury are flexible and bendably curved, they inherently generate lift when rotated due to their curvature. With regard to Applicant's argument that in Wilford, the angles are much too steep to provide a beneficial aerodynamic effect, this argument is not persuasive because due to their angulated configuration as shown in figure 5, blades 10/11 inherently generate lift when rotated. With regard to Applicant's argument that in Wallace, the blades 18 do not curve downwardly toward their distal ends to create a virtual disk having lifting body properties when rotated, this argument is not persuasive because due to the inclination of the bladed 18, lift is inherently generated when the

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rotor is rotated. When rapidly rotated, the blades 18 create a virtual disk having lifting body properties.

Note that anticipation by a prior art reference does not require the recognition of inherent properties that may be possessed by the prior art reference. See, Verdegaal Bros. Inc. v. Union Oil Co., 814 F.2d 628, 633, 2 USPQ2d 1051, 1054 (Fed. Cir), cert. denied, 484 U.S. 827 (1987). Moreover, a reference anticipates a claim if it discloses the claimed invention such that a skilled artisan could take its teachings in combination with his own knowledge of the particular art and be in possession of the invention. In re Graves, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701 (Fed. Cir. 1995), cert. denied, 116 S. Ct. 1362 (1996), quoting from In re LeGrice, 301 F.2d 929, 936, 133 USPQ 365, 372 (CCPA 1962). A prior art reference need not expressly disclose each claimed element in order to anticipate the claimed invention. See, Tyles Refrigeration v. Kysor Indus. Corp., 777 F.2d 687, 689, 227 USPQ 845, 846-847 (Fed. Cir. 1985). Rather, if a claimed element (or elements) is inherent in a prior art reference, then that element (or elements) is disclosed for purposes of finding anticipation. See, Verdegaal Bros. Inc. v. Union Oil Co., 814 F.2d at 631-33, 2 USPQ2d at 1052-54.

Drawings

The drawings are objected to because figures 1-12 are replete with elements that are shown in cross section which must be indicated by hatching. Correction is required.

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Specification

The abstract of the disclosure is objected to because it contains the term "is disclosed" (line 7) which is implied and should be deleted. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Wallace (figure 2).

Note blades 18 which sweep out the shape of a virtual disk.

Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilford (figure 5).

Note blades 10/11 which sweep out the shape of a virtual disk and means for controlling the camber 15.

Claims 1-2 are also rejected under 35 U.S.C. 102(b) as being anticipated by Kingsbury (figures 2-3). Note blades 16,17 which sweep out the shape of a virtual disk and means for controlling the camber 5/20.

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Terminal Disclaimer

The terminal disclaimer filed on March 6, 2000 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent 5,931,639 has been reviewed and is accepted. The terminal disclaimer has been recorded.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

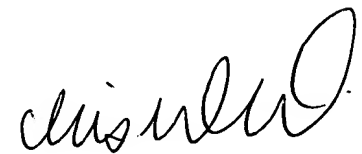
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Verdier whose telephone number is (703) 308-2638. The examiner can normally be reached on Monday-Friday from 9:00 a.m. to 5:30 p.m.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached on (703) 308-1044. The fax phone number for this Group is (703) 305-3588.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

CV
May 16, 2000



Christopher Verdier
Primary Examiner
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